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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/525,089	02/23/2005	Kazuo Inoue	266616US2PCT	5897
22850	7590	09/10/2007		
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER THOMAS, JAISON P	
			ART UNIT	PAPER NUMBER
			1751	
			NOTIFICATION DATE	DELIVERY MODE
			09/10/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/525,089

Applicant(s)

INOUE ET AL.

Examiner

Jaison P. Thomas

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 July 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 10-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8, 9 and 13-20 is/are rejected.
- 7) ☒ Claim(s) 7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 3/05, 1/06, 2/06, 3/06, 5/07.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Claims 10-12 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, Group II, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 7/25/2007.
2. Applicant's election with traverse of Group I, Claims 1-9 and 13-20 in the reply filed on 7/25/2007 is acknowledged. The traversal is on the ground(s) that there is no burden on the examiner. Applicant further argues that since no separate classifications have been provided for the separate inventions no burden has been established per MPEP 808.02. This is not found persuasive because the instant application has been filed under 35 USC 371 i.e. a national stage application of a PCT application. The restriction standard is established under lack of unity that does not require establishing separate classifications for the separate groups of inventions. Lack of unity has been established in the Office Action dated 6/25/2007, which states the special technical feature linking the two groups of inventions is known in the art.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-6,8,9 and 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Onori et al. (JP 2002-208447) in view of Takeshi (JP 11-307782).

Onori et al. teaches an anisotropic conductive sheet which is preferably used for the connector in test equipment of circuit apparatus to check electrical connections between electronic components and a printed circuit board or an IC etc. (pg. 1, para. 0001). The conductive sheet is comprised of an insulating elastic polymer such as silicone rubber (pg. 4, para. 0021) and metal particle such as nickel, cobalt, iron and can be further coated with gold or silver (pg. 5, para. 0025). The reference also teaches that the conductive sheet is covered "in the whole surface" with an electric discharge layer used to prevent the buildup of static electricity (pg. 3, para. 0016). This electrical discharge layer can be comprised of metal, carbon black, amines, conductive polymer or conductive matter in a polymer binder (pg. 2, para. 0010) and "carbon matter" such as graphite (pgs 14-15, para. 0075). The conductive particles, once formed inside the insulating matrix, are further coated with a "contact member" which may be comprised of nickel, copper or gold and what Examiner construes as equivalent to the limitations of Claim 6 wherein the contact member has a thickness of 10 to 500 microns (pg. 8, para. 0040). Drawing 36 shows an example of the anisotropic conductive sheet in use wherein a circuit labeled "1" is being tested by using a "connector plate" labeled "60" attached to the anisotropic conductive sheet labeled "10" which Examiner construes as equivalent in structure to the probe claims 16-20.

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Onori is relied upon as disclosed above. However, Onori does not teach the use of diamond like carbon (DLC) as an antistatic layer nor does it teach the metal layer thickness layer limitations of Claim 9.

Takeshi teaches the formation of a diamond-like carbon layer on various insulating substrates in a thin film transistor element as antistatic layer to prevent the "electrostatic breakage" of the TFT element (see Abstract). The thickness of the DLC film taught can range from 5 to 100 nm. The DLC film is coated onto a variety of insulating substrates including organic resin films (pg. 3, para. 0036).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the materials and thicknesses of the antistatic layer in Onori with the DLC film of Takeshi since Takeshi teaches the advantage of using DLC films in preventing electrostatic discharge and has further taught a optimum thickness of the layer to prevent static discharge from damaging the underlying substrates. Alternatively, the claims are obvious because the substitution of one known element for another would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

With respect to the limitations of Claim 9, a prima facie case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected them to have the same properties, see *Titanium Metals Corp. of America v. Banner*, 778F.2d 775,227 USPQ 773 (Fed. Cir. 1985). See MPEP 2144.051.

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5. Claims 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Onori et al. and Takeshi as applied to claims 1-6,8,9 and 16-20 above, and further in view of Kazuo (JP 2002-203879).

Onori and Takeshi are relied upon as disclosed above. However, neither Onori or Takeshi teach the use of a frame plate in the conjunction with the anisotropic conductive sheet of Claim 1.

Kazuo teaches probe equipment for wafer testing which is comprised of a anisotropic conductive sheet (Abstract). In drawing 10, a frame plate labeled "20" is fitted with anisotropic conductive sheets labeled "30" and drawing 11 illustrates how this apparatus is used to test a circuit board labeled "10".

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the frame plate of Kazuo with the anisotropic conductive sheet of Onori/Takeshi since all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded predictable results to one of ordinary skill in the art at the time the invention.

Allowable Subject Matter

6. Claim 7 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The secondary reference teaches the formation of a

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DLC film on top of insulating substrates only and there is no suggestion in the prior art to form said DLC film on a contact point containing an intervening metal layer.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jaison P. Thomas whose telephone number is (571) 272-8917. The examiner can normally be reached on Mon-Fri 8:30 am to 5:00 pm.


8. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas McGinty can be reached on (571) 272-1029. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Jaison Thomas
Examiner
9/3/2007

JT


DOUGLAS MCGINTY
SUPERVISORY PATENT EXAMINER

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